CLAIMS

What is claimed is:

1. A method for making decorative grass from a sheet of material, the method comprising the steps of:

slitting a sheet of material to produce a web of strands of material;

cutting across at least one of the sheet of material and the web of strands of material at a cutting rate to produce a quantity of decorative grass; and

dividing the quantity of decorative grass into a plurality of discrete aggregates of decorative grass.

2. The method of claim 1 further comprising the step of packaging at least one of the plurality of discrete aggregates of decorative grass.

3. A method for making decorative grass from a sheet of material, the method comprising the steps of:

cutting across the sheet of material at a cutting rate to produce a cut sheet of material having a predetermined length of the decorative grass;

slitting the cut sheet of material to produce a quantity of decorative grass; and

dividing the quantity of decorative grass into a plurality of discrete aggregates of decorative grass.

4. The method of claim 1 further comprising the step of packaging at least one of the plurality of discrete aggregates of decorative grass.

5. A method for making decorative grass from a sheet of material, the method comprising the steps of:

providing a sheet of material having a sheet width, a sheet thickness and a sheet density;

selecting a predetermined length and width for decorative grass, and at least one predetermined weight or at least one predetermined volume for charges of decorative grass to be packaged;

selecting the number of discrete aggregates of decorative grass produced per cut and the weight or volume of each discrete aggregate of decorative grass such that the sum of the weight or sum of the volume of one or more discrete aggregates of decorative grass substantially totals the predetermined weight or predetermined volume of a charge of decorative grass;

slitting the sheet of material to produce a web of strands of material;

cutting across at least one of the sheet of material and the web of strands of material at a controlled rate corresponding to the predetermined length of the decorative grass to make a quantity of decorative grass;

dividing, at each cut, the quantity of decorative grass into the predetermined number of discrete aggregates of decorative grass per cut; and

placing at least one controlled charge of decorative grass into a package.

6. A method for making decorative grass from a sheet of material, the method comprising the steps of:

providing a sheet of material having a sheet width, a sheet thickness and a sheet density;

selecting a predetermined length and width for decorative grass, and at least one predetermined weight or at least one predetermined volume for charges of decorative grass to be packaged;

selecting the number of discrete aggregates of decorative grass produced per cut and the weight or volume of each discrete aggregate of decorative grass such that the sum of the weight or sum of the volume of one or more discrete aggregates of decorative grass

substantially totals the predetermined weight or predetermined volume of a charge of decorative grass;

cutting across at least one of the sheet of material and the web of strands of material at a controlled rate corresponding to the predetermined width of the decorative grass to make a quantity of decorative grass;

dividing, at each cut, the quantity of decorative grass into the predetermined number of discrete aggregates of decorative grass per cut; and

placing at least one controlled charge of decorative grass into a package.

7. A method for producing and packaging filaments of material, the method comprising:

providing a sheet of flexible material having a thickness, a width, a density and a controlled travel speed;

slitting the sheet of flexible material to produce a web of strands of material having a predetermined width;

cutting at least one of the sheet of flexible material and the web of strands of material using a cutter having a controlled rate so that a quantity of filaments of material is cut therefrom;

dividing at a predetermined rate the quantity of decorative grass into a plurality of discrete aggregates of decorative grass using a divider having at least one partition;

positioning a package to receive at least one discrete aggregate of decorative grass;

transferring at least one discrete aggregate of decorative grass into the package, the weight and volume of the discrete aggregate of decorative grass being based on the controlled rate of the cutter and on the number of partitions in the divider; and

removing the package containing the discrete aggregates of decorative grass.

8. A method for producing and packaging decorative grass, the method comprising the steps of:

extruding strands of flexible material with each strand having a predetermined thickness, width, density and travel speed;

cutting at a predetermined rate the strands of flexible material into a quantity of decorative grass comprised of elongate filaments of material;

dividing the quantity of decorative grass into a plurality of discrete aggregates of decorative grass using a divider having at least one partition;

positioning a package to receive at least one discrete aggregate of decorative grass;

transferring at least one discrete aggregate of decorative grass into the package based on the predetermined rate at which the decorative grass is being produced and on the number of partitions in the divider; and

removing the package containing the decorative grass.

9. A method for producing and packaging decorative grass, the method comprising the steps of:

producing at a predetermined rate a quantity of decorative grass comprising elongate and flexible filaments of material;

dividing at a predetermined rate the quantity of decorative grass into a plurality of discrete aggregates of decorative grass using a divider having at least one partition;

positioning a package to receive at least one discrete aggregate of decorative grass;

transferring at least one discrete aggregate of decorative grass into the package based on the predetermined rate at which the decorative grass is being produced and on the number of partitions in the divider; and

removing the package containing the decorative grass.

10. The method of claim 9 further comprising the steps of:

providing a sheet of material having a thickness, a width, a density and a predetermined travel speed;

slitting the sheet of material to produce a web of strands of material having a predetermined width; and

cutting the strands of material into quantities of decorative grass.

11. An apparatus for producing and dividing decorative grass from a web of strands of material having predetermined widths, the apparatus comprising:

a cutter adapted to receive the web of strands of material having predetermined widths, the cutter cutting the web of strands at a constant rate to produce a plurality of quantities of decorative grass having a predetermined length; and

means for dividing each quantity of decorative grass into discrete aggregates of decorative grass.

12. The apparatus of claim 11, further comprising a programmable logic controller monitoring and regulating the rate at which the cutter cuts the web of strands of material to produce each quantity of decorative grass.

13. The apparatus of claim 11, further comprising a programmable logic controller monitoring and regulating the rate at which the quantities of decorative grass are produced.

14. An apparatus for producing and dividing decorative grass from a web of strands of material having a predetermined width, the apparatus comprising:

means for producing a sheet of flexible material having a thickness, a width, a density and a predetermined travel speed;

means for slitting the sheet of material to produce the web of strands of material having predetermined widths;

a cutter adapted to receive the web of strands of material having predetermined widths, the cutter cutting at least one of the sheet of material and the web of strands at a constant rate to produce a plurality of quantities of decorative grass having a predetermined length; and

means for dividing the quantities of decorative grass into discrete aggregates of decorative grass.

15. The apparatus of claim 14, wherein the means for dividing the strands of decorative grass includes at least one partition defining a plurality of channels, at least one partition cooperating with the cutter exit to apportion each quantity of decorative grass into discrete aggregates of decorative grass.

16. The apparatus of claim 15, wherein the apparatus further comprises:

a plurality of packaging assemblies, each packaging assembly capable of accumulating a predetermined number of discrete aggregates of decorative grass to form a charge of decorative grass and disposing the charge of decorative grass into a package; and

a plurality of duct assemblies communicating with the channels and the packaging assemblies for transporting the discrete aggregates of decorative grass from the channels to the packaging assemblies.

17. The apparatus of claim 16, wherein each duct assembly includes a duct extending from one of the channels to one of the packaging assemblies, and a blower for producing an air flow within the duct.

18. The apparatus of claim 16, further comprising a package handler for positioning the package to receive the charge of decorative grass.

19. The apparatus of claim 18, wherein the package handler is movable at a packaging interval between a fill position and a discharge position.

20. The apparatus of claim 19, further comprising a programmable logic controller regulating the packaging interval of the package handler based on the number of cuts made by the cutter.

21. The apparatus of claim 19, further comprising a programmable logic controller regulating the packaging interval of the package handler based on an elapsed interval of time.

22. The apparatus of claim 14, wherein each of the packaging assemblies includes a plurality of magazines movable at a packaging interval between a fill position and a discharge position whereby discrete aggregates of decorative grass are accumulated in the magazines in the fill position to form the charges of decorative grass, the charges of decorative grass being discharged into a package in the discharge position.

23. The apparatus of claim 22, wherein each packaging assembly includes an inserter positioned for discharging the charges of decorative grass into the package.

24. The apparatus of claim 23, wherein the inserter comprises a pneumatic cylinder having a piston which is extendable through the magazine positioned in the discharge position.

25. The apparatus of claim 22, further comprising a programmable logic controller outputting signals to cause the magazines to move between the fill position and the discharge position.

26. The apparatus of claim 25, wherein the programmable logic controller regulates the packaging interval based on the number of cuts made by the cutter.

27. The apparatus of claim 25, wherein the programmable logic controller regulates the packaging interval based on an elapsed interval of time.

28. An apparatus for producing and dividing decorative grass from a web of strands of material having a predetermined width, the apparatus comprising:

means for producing a sheet of flexible material having a thickness, a width, a density and a predetermined travel speed;

a cutter adapted to receive the sheet of flexible material, the cutter cutting the sheet of material at a constant rate to produce a cut sheet of material having a predetermined length of the decorative grass; and

means for slitting the cut sheet of material at a constant rate to produce a plurality of quantities of decorative grass having predetermined widths; and

means for dividing the quantities of decorative grass into discrete aggregates of decorative grass.

29. The apparatus of claim 28, wherein the means for dividing the strands of decorative grass includes at least one partition defining a plurality of channels, at least one partition cooperating with the cutter exit to apportion each quantity of decorative grass into discrete aggregates of decorative grass.

30. The apparatus of claim 29, wherein the apparatus further comprises:

a plurality of packaging assemblies, each packaging assembly capable of accumulating a predetermined number of discrete aggregates of

decorative grass to form a charge of decorative grass and disposing the charge of decorative grass into a package; and

a plurality of duct assemblies communicating with the channels and the packaging assemblies for transporting the discrete aggregates of decorative grass from the channels to the packaging assemblies.

31. The apparatus of claim 30, wherein each duct assembly includes a duct extending from one of the channels to one of the packaging assemblies, and a blower for producing an air flow within the duct.

32. The apparatus of claim 30, further comprising a package handler for positioning the package to receive the charge of decorative grass.

33. The apparatus of claim 32, wherein the package handler is movable at a packaging interval between a fill position and a discharge position.

34. The apparatus of claim 33, further comprising a programmable logic controller regulating the packaging interval of the package handler based on the number of cuts made by the cutter.

35. The apparatus of claim 33, further comprising a programmable logic controller regulating the packaging interval of the package handler based on an elapsed interval of time.

36. The apparatus of claim 28, wherein each of the packaging assemblies includes a plurality of magazines movable at a packaging interval between a fill position and a discharge position whereby discrete aggregates of decorative grass are accumulated in the magazines in the fill position to form the charges of decorative grass, the charges of decorative grass being discharged into a package in the discharge position.

37. The apparatus of claim 36, wherein each packaging assembly includes an inserter positioned for discharging the charges of decorative grass into the package.

38. The apparatus of claim 37, wherein the inserter comprises a pneumatic cylinder having a piston which is extendable through the magazine positioned in the discharge position.

39. The apparatus of claim 36, further comprising a programmable logic controller outputting signals to cause the magazines to move between the fill position and the discharge position.

40. The apparatus of claim 39, wherein the programmable logic controller regulates the packaging interval based on the number of cuts made by the cutter.

41. The apparatus of claim 39, wherein the programmable logic controller regulates the packaging interval based on an elapsed interval of time.